

IN THE CLAIMS

Claims 1-12 (Canceled).

13. (Currently Amended) A method for mounting a circuit board component to a circuit board, comprising the steps of:

positioning a solder paste distribution tool over a mounting location of the circuit board, the solder paste distribution tool defining a solder paste aperture having a non-circular cross-sectional shape which includes partially coinciding circles;

applying solder paste to the mounting location of the circuit board through the solder paste distribution tool such that a portion of the solder paste passes onto the mounting location through the solder paste aperture having the non-circular cross-sectional shape;

removing the solder paste distribution tool from the mounting location; and

disposing the circuit board component over the mounting location and providing heat to form solder joints between the circuit board component and the circuit board, one of the solder joints being formed from the portion of the solder paste that passed onto the mounting location through the solder paste aperture having the non-circular cross-sectional shape.

14. (Currently Amended) ~~The method of claim 13~~ A method for mounting a circuit board component to a circuit board, comprising the steps of:

positioning a solder paste distribution tool over a mounting location of the circuit board, the solder paste distribution tool defining a solder paste aperture having a non-circular cross-sectional shape,

applying solder paste to the mounting location of the circuit board through the solder paste distribution tool such that a portion of the solder paste passes onto the mounting location through the solder paste aperture having the non-circular cross-sectional shape,

removing the solder paste distribution tool from the mounting location, and

disposing the circuit board component over the mounting location and providing heat to form solder joints between the circuit board component and the circuit board, one of the solder joints being formed from the portion of the solder paste that passed onto the mounting location through the solder paste aperture having the non-circular cross-sectional shape,

wherein the non-circular cross-sectional shape of the solder paste aperture includes partially coinciding circles having different diameters, and

wherein the step of applying the solder paste includes the step of:

passing the portion of the solder paste through the partially coinciding circles having different diameters.

15. (Original) The method of claim 14 wherein the partially coinciding circles include a first circle having a first diameter, and a second circle having a second diameter that is less than the first diameter; and wherein the step of positioning the solder paste distribution tool includes the step of:  
orienting the solder paste distribution tool relative to the circuit board such that the first circle aligns over a soldering pad of the mounting location of the circuit board, and at least a portion of the second circle aligns over at least a portion of a stringer leading to the soldering pad.

16. (Original) The method of claim 13 wherein the solder paste distribution tool defines multiple solder paste apertures which include the solder paste aperture having the non-circular cross-sectional shape, and wherein the step of applying the solder paste includes the step of:

passing the solder paste through the multiple solder paste apertures onto the mounting location of the circuit board.

17. (Currently Amended) ~~The method of claim 16~~ A method for mounting a circuit board component to a circuit board, comprising the steps of:

positioning a solder paste distribution tool over a mounting location of the circuit board, the solder paste distribution tool defining a solder paste aperture having a non-circular cross-sectional shape,

applying solder paste to the mounting location of the circuit board through the solder paste distribution tool such that a portion of the solder paste passes onto the mounting location through the solder paste aperture having the non-circular cross-sectional shape,

removing the solder paste distribution tool from the mounting location, and

disposing the circuit board component over the mounting location and providing heat to form solder joints between the circuit board component and the circuit board, one of the solder joints being formed from the portion of the solder paste that passed onto the mounting location through the solder paste aperture having the non-circular cross-sectional shape;

wherein the non-circular cross-sectional shape of each of the multiple solder paste apertures includes a first circle having a first diameter and a second circle having a second diameter that is different than

the first diameter, the second circle partially coinciding with the first circle;

wherein, for each of the multiple solder paste apertures, the second circle of that non-circular solder paste aperture resides in a same direction relative to the first circle of that solder paste aperture; and wherein the step of passing the solder paste includes the step of:

providing portions of the solder paste through the first and second circles of the solder paste apertures.

18. (Currently Amended) ~~The method of claim 16~~ A method for mounting a circuit board component to a circuit board, comprising the steps of:

positioning a solder paste distribution tool over a mounting location of the circuit board, the solder paste distribution tool defining a solder paste aperture having a non-circular cross-sectional shape,

applying solder paste to the mounting location of the circuit board through the solder paste distribution tool such that a portion of the solder paste passes onto the mounting location through the solder paste aperture having the non-circular cross-sectional shape,

removing the solder paste distribution tool from the mounting location, and

disposing the circuit board component over the mounting location and providing heat to form solder joints between the circuit board component and the circuit board, one of the solder joints being formed from the portion of the solder paste that passed onto the mounting location through the solder paste aperture having the non-circular cross-sectional shape;

wherein the non-circular cross-sectional shape of each of the multiple solder paste apertures includes a first circle having a first diameter

and a second circle having a second diameter that is different than the first diameter, the second circle partially coinciding with the first circle; wherein, for a first solder paste aperture, the second circle of the first solder paste aperture resides in a first direction relative to the first circle of the first solder paste aperture;

wherein, for a second solder paste aperture, the second circle of the second solder paste aperture resides in a second direction relative to the first circle of the second solder paste aperture, the second direction being different than the first direction; and

wherein the step of passing the solder paste includes the step of:

providing portions of the solder paste through the first and second circles of the solder paste apertures.

19. (Original) A method for making a solder paste distribution tool, comprising the steps of:
  - providing a support member;
  - providing a distribution member that includes a solder paste aperture having a non-circular cross-sectional shape; and
  - fastening the distribution member to the support member.
20. (Original) The method of claim 19, wherein the step of providing the distribution member includes the step of:
  - drilling partially coinciding circles through a solid substrate in order to form the distribution member that includes the solder paste aperture having the non-circular cross-sectional shape.
21. (Previously Added) The method of claim 13 wherein the solder paste distribution tool includes a distribution member having a top surface and a bottom surface, wherein the solder paste distribution tool defines a top opening at the top surface and a bottom opening at the bottom surface,

wherein the solder paste aperture extends from the top opening at the top surface to the bottom opening at the bottom surface, and wherein the step of applying the solder paste includes the step of:

passing the portion of the solder paste onto the mounting location of the circuit board through the top opening at the top surface and the bottom opening at the bottom surface.

22. (Previously Added) The method of claim 21 wherein the distribution member further defines an aperture surface that extends from the top opening at the top surface to the bottom opening at the bottom surface, wherein the aperture surface is substantially non-perpendicular with the top and bottom surfaces of the distribution member, and wherein the step of positioning the solder paste distribution tool includes the step of:

orienting the solder paste distribution tool such that the aperture surface is substantially non-perpendicular with the mounting location of the circuit board when the top and bottom surfaces of the distribution member are substantially parallel to the mounting location of the circuit board.

23. (Previously Added) The method of claim 19 wherein the step of providing the distribution member includes the step of:

supplying the distribution member such that (i) the distribution member defines a top opening at a top surface of the distribution member and a bottom opening at a bottom surface of the distribution member, and (ii) the solder paste aperture extends from the top opening to the bottom opening.

24. (Previously Added) The method of claim 23 wherein the step of supplying includes the step of:

furnishing the distribution member such that the distribution member further defines an aperture surface that extends from the top opening at the top surface of the distribution member to the bottom opening at the bottom surface of the distribution member, and wherein the aperture surface is substantially non-perpendicular with the top and bottom surfaces of the distribution member.

25. (Currently Amended) A method for distributing solder paste onto a mounting location of a circuit board, comprising the steps of:
- positioning a solder paste distribution tool over a mounting location of the circuit board, the solder paste distribution tool defining a solder paste aperture having a non-circular cross-sectional shape which includes partially coinciding circles;
  - applying solder paste to the mounting location of the circuit board through the solder paste distribution tool such that a portion of the solder paste passes onto the mounting location through the solder paste aperture having the non-circular cross-sectional shape; and
  - removing the solder paste distribution tool from the mounting location.
26. (Previously Added) The method of claim 25 wherein the solder paste distribution tool includes a distribution member having a top surface and a bottom surface, wherein the solder paste distribution tool defines a top opening at the top surface and a bottom opening at the bottom surface, wherein the solder paste aperture extends from the top opening at the top surface to the bottom opening at the bottom surface, and wherein the step of applying the solder paste includes the step of:
- passing the portion of the solder paste onto the mounting location of the circuit board through the top opening at the top surface and the bottom opening at the bottom surface.

27. (Previously Added) The method of claim 26 wherein the distribution member further defines an aperture surface that extends from the top opening at the top surface to the bottom opening at the bottom surface, wherein the aperture surface is substantially non-perpendicular with the top and bottom surfaces of the distribution member, and wherein the step of positioning the solder paste distribution tool includes the step of:
- orienting the solder paste distribution tool such that the aperture surface is substantially non-perpendicular with the mounting location of the circuit board when the top and bottom surfaces of the distribution member are substantially parallel to the mounting location of the circuit board.
28. (Newly Added) The method of claim 13 wherein the solder paste distribution tool defines multiple solder paste apertures including the solder paste aperture having the non-circular cross-sectional shape, wherein the multiple solder paste apertures defined by the solder paste distribution tool have substantially curved intersecting edges to reduce solder paste clogging during the step of applying the solder paste.
29. (Newly Added) The method of claim 28 wherein the solder paste aperture, which includes the partially coinciding circles, has substantially blended radii at its substantially curved intersecting edges.
30. (Newly Added) The method of claim 25 wherein the solder paste distribution tool defines multiple solder paste apertures including the solder paste aperture having the non-circular cross-sectional shape, wherein the multiple solder paste apertures defined by the solder paste distribution tool have substantially curved intersecting edges to reduce solder paste clogging during the step of applying the solder paste.

31. (Newly Added) The method of claim 30 wherein the solder paste aperture, which includes the partially coinciding circles, has substantially blended radii at its substantially curved intersecting edges.